

WHAT IS CLAIMED IS:

1. A diagnostic support apparatus comprising:
diagnostic support content storage means for
storing a plurality of diagnostic support contents for
5 providing diagnostic support;

selection means for selecting a desired diagnostic
support content from the plurality of diagnostic
support contents stored in the diagnostic support
content storage means;

10 information acquisition means for acquiring
diagnostic information concerning at least one of a
patient, an examination, and an image from a medical
system;

diagnostic support information creating means for
15 creating diagnostic support information on the basis
of the diagnostic support content selected by the
selection means and the diagnostic information acquired
from the medical system; and

diagnostic support information display means for
20 displaying the diagnostic support information created
by the diagnostic support information creating means.

2. A diagnostic support apparatus according to
claim 1, wherein

the diagnostic support apparatus is constituted by
25 a plurality of computers connected to each other
through a line, and further comprises

transmission means for transmitting the stored

diagnostic support content, and

reception means for receiving the diagnostic support content transmitted from the transmission means, and

5 the diagnostic support information creating means creates diagnostic support information on the basis of diagnostic information acquired from the medical system and the diagnostic support content received by the reception means.

10 3. A diagnostic support apparatus according to claim 2, further comprising

diagnostic support content creating means for creating diagnostic support content,

15 transmission means for transmitting a diagnostic support content created by using the diagnostic support content creating means, and

reception means for receiving the diagnostic support content transmitted from the transmission means.

20 4. A diagnostic support apparatus according to claim 3, wherein

the apparatus further comprises

25 diagnostic support content creating means storage means for storing the diagnostic support content creating means,

transmission means for transmitting diagnostic support content creating means stored in the diagnostic

support content creating means storage means, and
reception means for receiving the diagnostic
support content creating means transmitted from the
transmission means, and

5 creates diagnostic support content by using the
received diagnostic support content creating means.

5. A diagnostic support apparatus according to
claim 3, wherein

the diagnostic support content creating means
10 further comprises storage means for storing first
diagnostic support content, and

creates second diagnostic support content by using
the first diagnostic support content and the diagnostic
information.

15 6. A diagnostic support apparatus according to
claim 2, wherein

the diagnostic support content storage means and
the transmission means constitute a diagnostic support
server, and

20 the information acquisition means, the reception
means, the diagnostic support information creating
means, and the diagnostic support information display
means constitute a diagnostic support execution
terminal.

25 7. A diagnostic support apparatus according to
claim 6, further comprising a diagnostic support
content creating terminal including diagnostic support

content creating means for creating the diagnostic support content, and transmission means for transmitting, to the diagnostic support content server, diagnostic support content created by using the
5 diagnostic support content creating means.

8. A diagnostic support apparatus according to claim 7, wherein

the apparatus comprises a diagnostic support content creating means server including diagnostic support content creating means storage means for
10 storing the diagnostic support content creating means, and transmission means for transmitting the diagnostic support content creating means to the diagnostic support content providing terminal, and

15 the diagnostic support content creating terminal comprises diagnostic support content reception means for receiving the transmitted diagnostic support content creating means, and

creates diagnostic support content by using the received diagnostic support content creating means.
20

9. A diagnostic support apparatus according to claim 6, wherein

the apparatus comprises detection means for detecting that diagnostic support content stored in the
25 diagnostic support content storage means is at least updated or added, and

transmits the diagnostic support content on the

basis of a detection result obtained by the detection means.

10. A diagnostic support apparatus according to claim 7, wherein

5 the diagnostic support content creating terminal comprises information acquisition means for acquiring diagnostic information concerning at least one of a patient, an examination, and an image from a medical system, and

10 storage means for storing first diagnostic support content, and

 creates second diagnostic support content by using the first diagnostic support content and the diagnostic information.

15 11. A diagnostic support apparatus according to claim 1, wherein

 the diagnostic support information creating means comprises characteristic value calculation means for calculating a characteristic value from a medical image contained in the diagnostic support information, and

20 creates diagnostic support information based on the characteristic value calculated by the characteristic value calculation means.

 12. A diagnostic support apparatus according to claim 11, wherein

25 the diagnostic support information creating means further comprises identification/classification means,

and

creates diagnostic support information based on an
identification/classification result using the
characteristic value calculated by the characteristic
value calculation means.

13. A diagnostic support method of providing
diagnostic support comprising:

a step of acquiring diagnostic support content;

a step of inputting diagnostic information
concerning at least one of a patient as a diagnostic
support target, an examination, and an image;

a step of creating diagnostic support information
using the diagnostic support content and the diagnostic
information; and

a step of displaying the diagnostic support
information.

14. A diagnostic support method according to
claim 13, further comprising

a step of creating the diagnostic support content,
and

a step of transmitting the diagnostic support
content to another computer.

15. An information processing apparatus
comprising:

storage means for storing processing data
constituted by at least one image data, character
string data, and numerical value data;

graph creating means for creating graph
information from the numerical value data;

image list information creating means for creating
image list information from the image data;

5 table list information creating means for creating
table list information from the character string data
and the numerical value data;

display means for displaying the graph informa-
tion, the image list information, and the table list
10 information;

selection means for selecting information
displayed on the display means; and

information management means for managing the
graph information, the image list information, and the
15 table list information displayed on the display means.

16. An information processing apparatus according
to claim 15, wherein

the information management means changes, when one
or a plurality of graph elements on the graph informa-
20 tion are selected by the selection means, display of an
image corresponding to the selected graph element in
the image list information, and display of a table item
corresponding to the selected graph element in the
table list information,

25 changes, when one or a plurality of images on the
image list information are selected by the selection
means, display of a graph element corresponding the

selected image in the graph information, and display of a table item corresponding to the selected image in the table list information, and

changes, when one or a plurality of table items on
5 the table list information are selected by the selection means, display of a graph element corresponding to the selected item in the graph information, and display of an image corresponding to the selected item in the image list information.

10 17. A diagnostic support apparatus for supporting a diagnosis by an examiner, comprising

image storage means for storing image data input from an endoscopic device, characteristic value calculation means for calculating at least one
15 characteristic value to quantify a finding associated with a diagnosis from image data stored in the image storage means, and diagnostic support information display means for displaying diagnostic support information on the basis of a calculation result
20 obtained by the characteristic value calculation means, the characteristic value calculation means including

blood vessel extraction means for extracting a transmission blood vessel image in the image data
25 stored in the image storage means; and

blood vessel characteristic value calculation means for representing a running state of a see-through

blood vessel image as a characteristic value on the basis of an output from the blood vessel extraction means.

18. A diagnostic support apparatus according to
5 claim 17, wherein

the blood vessel extraction means comprises
gradient information detection means for detecting
density gradient information of image data recorded on
the image recording means,

10 shape edge detection means for detecting a shape
edge based on a shape of a living body on the basis of
an output from the gradient information detection
means,

blood vessel candidate extraction means for
15 extracting a blood vessel image as a see-through blood
vessel image candidate, with respect to at least one
color signal, from image data constituted by a
plurality of color signals, and

separation means for separating a desired
20 see-through blood vessel image from the shape edge on
the basis of outputs from the shape edge detection
means and the blood vessel candidate extraction means.

19. A diagnostic support apparatus according to
claim 17, wherein

25 the blood vessel candidate extraction means
comprises

edge information detection means for detecting

edge information, with respect to at least one color signal, from image data constituted by a plurality of color signals and stored in the image storage means, and

5 color tone information calculation means for calculating a value associated with a color tone, with respect to at least one color signal, from image data constituted by a plurality of color signals and stored in the image storage means, and

10 extracts a blood vessel candidate on the basis of outputs from the edge information detection means and the color tone information calculation means.

20. A diagnostic support apparatus according to claim 18, wherein the gradient information detection
15 means detects density gradient information of each of image data constituted by a plurality of color signals and stored in the image storage means, and the shape edge detection means detects the shape edge on the basis of threshold processing for a linear sum between
20 density gradient information of a plurality of color signals output from the gradient information detection means.

21. A diagnostic support apparatus according to claim 19, wherein the separation means extracts only
25 image information of a shape edge portion on the basis of shape edge image information output from the shape edge detection means and blood vessel candidate image

information output from the blood vessel candidate
extraction means, detects blood vessel candidate image
information based on the shape edge by performing
expansion processing of image information of the shape
5 edge portion on the basis of the blood vessel candidate
image information, and removes the shape edge portion
having undergone the expansion processing from the
blood vessel candidate image information.

22. An diagnostic support apparatus according
10 to claim 19, wherein the color tone information
calculation means sets a value calculated by $R/(R + G + B)$
as a value associated with a color tone when the
plurality of color signals comprise R, G, and B.